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(54) CORRECTING BEAM POINTING ERROR FOR SCANNING PHASE ARRAY ANTENNA.

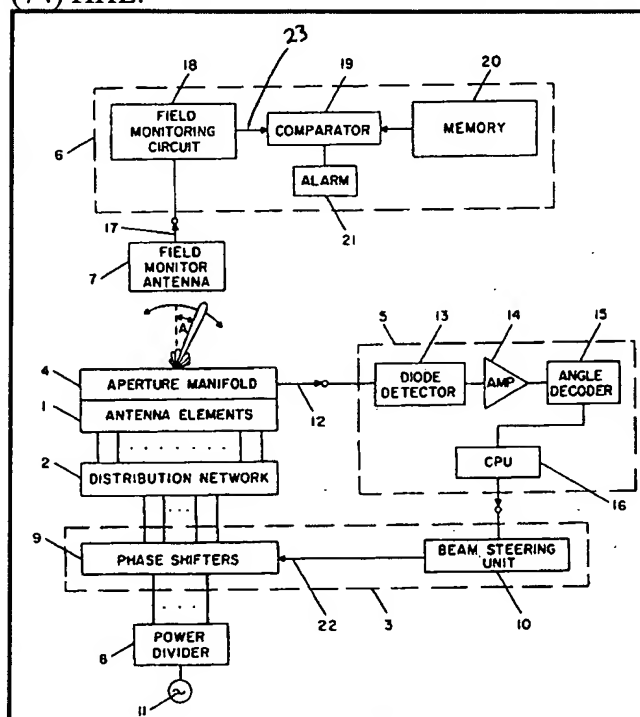
(51) H01Q3/36,40.

(71) Hazeltine Corp.

(72) Frazita, R.F.

(31) 415057; (32) 7 Sep 1982; (33) US.

(74) HHL.



(57) An antenna system for radiating waves into a selected space region in a particular radiation pattern includes an aperture with an array of antenna elements supplied with wave energy signals from the power supply 11 and divider 8 via distribution network 2. The beam radiated by the array is scanned in accordance with a predetermined pattern by means of the beam steering unit 10 and phase shifting network 9 which controls the phase supply of power to the antenna elements. A manifold 4 is directly coupled to the aperture 1 and outputs a signal on line 12 representing the pointing angle of the beam radiated by the aperture. The pointing angle signal is detected by diode detector 13 and amp 14 and the dwell gate processor 15 decodes the detected signal and provides to the processor 16 a representative angle signal. The CPU 16 compares the detected angle to the required angle stored in memory and sends a correction signal to the beam steering unit 10 to adjust the start/stop time of the scanning of the beam so that the predetermined pattern remains constant.